Kemerovo: Ten years of Change and Innovation of Health Care: 1986-1996 A Case Study in Health Sector Reform Lessons for 21st Century?

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Many Russian health sector leaders are trying new ways to improve how their health services are delivered and financed. Since the 1980's these strategies for health sector reform have been based on the paradigm that if you change the way money moves in a health system, you can change the behavior and performance of the system. Kemerovo was one of the early sites for such innovation. They have continued to be looked at as a source for creative ways to improve the performance of their health sector, and provide models for the rest of Russia.

For the past 10 years, 1986-1996, Kemerovo has been a leading pilot region for health finance reform in the Russian Federation. It's health sector leaders and its institutions always seem to be among the most innovative in Russia, with many reform strategies paralleling or ahead of contemporary ideas around the Western world. Since 1992, compulsory contributions are routed to insurers via a central compensation fund, and the model of "regulated or managed competition" is being introduced. Hospitals are paid at standard rates ('Clinical Statistical Groups') per case by diagnosis and procedure, and by outcome. Primary care is moving from fundholder polyclinics to general practitioners operating under incentives for efficient gatekeeping and provision of quality out-patient care. Private insurance co-exists for about five per cent of the population, but the compulsory component is regulated through a central territorial fund of compulsory health insurance, and only supplement benefits are voluntary.

The region has strong natural resources but, against a background of economic and environmental problems, has not been able to achieve desired levels of funding to its health sector. What social, political and economic factors have contributed to this concentration of innovation? Why have Kemerovo health leaders become such a valued resource? What lessons can be taken from the Kemerovo experience that could help other regions improve the performance of their health sectors? These are the key questions guiding the following case study of the Kemerovo health sector reforms.

Background for Innovation:

Exhibit 1 provides a map of the Kemerovo Oblast. As indicated in Exhibit 2, the population is concentrated in two major cities, Kemerovo (557,000) and Novokuznezk (618,000).

THE MAP

The Kemerovo region was founded the 26th of January 1943. It's located in the Russian federation, in the south-east of West Siberia. It borders in the south-west with the Altai region, in the north with the Tomsk region, in the east with the Krasnoyarsk territory. The area is equal to 95.5 thousand square kilometers. The population is 3.2 million. The distance from Moscow is 3482 kilometers. The difference is four hours (local time - Moscow time plus four hours). The Kuznetsk coal mining basin (Kuzbass) has its center Kemerovo.

Exhibit 2 Demographic Profile of Kemerovo

THE ADMINISTRATIVE - TERRITORIAL SUBDIVISION (1991)

Regions	19
Cities	20
Towns or settlements	47
Villages	1134

POPULATION (1991)

Total - 3180.2 thousand	
City inhabitants	87%
Russians	90%
Local nationalities	
Shors	0.4%
Teleusts	0.1%
The amount of active laborers	57%
Pensioners	18%

QUANTITY OF PEOPLE IN CITIES AND REGIONS (1991)

CITY	THOUSAND OF PEOPLE
Andjzero-Sudjzensk	112.5
Belovo	174.7
Berezovski	57.7
Kemerovo	557.2
Kiselevsk	132.4
Leninsk-Kuznetsk	140.6
Marlinsk	40.1
Mejzdurechensk	107.6
Miski	48.8
Novokuznetsk	618.6
Osiniki	82.2
Prokopevsk	270.4
Yurga	94.7

Kuzbass is the region around Kemerovo city, one of the most important Russia coal mining centers. The region has been subject to industrial pollution and reported above-average levels of industrial injury[1] . These problems are in addition to the usual budgetary constraints facing all of the 89 oblasts/territories of the Russian Federation as they move through the economic and political challenges at the close of the 20th Century.

The Generic Reform Process: Kemerovo and Around the World

The review of Kemerovo's experiences with health sector reform parallel the reform processes of many regions and countries during the late 20th Century. Exhibit 3 illustrates the common components of a health sector reform process:

- Problem definition... a recognition that the current level of health sector performance is unsatisfactory;

- Solution design... a decision that the problem is not only solvable, but there is a consensus reached, among those with the power to act that a specific path of action is to be followed;

- Implementation... a series of actions taken by diverse groups that allocate scarce resources to achieve demonstrable results;

- Refinement... most solutions are initially imperfect and benefit from critical evaluation and mid-course corrections; both corrections in strategy executions and corrections in initial expectations about the goals to be achieved.

- Dissemination... lessons learned are packaged to facilitate understanding and adoption/adaption by others in order to extend the positive impact of the reforms from pilot sites to the face system.

Frenk observes that in most countries, the critical ingredient to successful reform is the people and the personalities engaged in the reform process[2] . This has become evident in the Kemerovo experience... key people have provided the essential catalyst for not only the search for a better way to conceptualize something, but the search for better ways to actually test these propositions in the local reality, before attempting to replicate the innovations more widely. Kemerovo's ability to sustain a continuing pursuit for new answers to old questions is a function of a diverse set of people, who, when encouraged and supported to "find-a-better-way", have been able to establish Kemerovo's unique position as a site for innovation.

Their success has become a cyclical, self-fullfilling prophesy. Early successes attracted more intelligent people, which catalyzed the formulation of more innovative ideas and experiences, which in then attracted greater resources. The availability of more resources and better ideas helped generate greater successes. Successes attracted more positive attention, which generated a greater willingness to allow oblast and Federal level flexibility from traditional constraints of thought, processes and use of resources. Flexibility fostered further creativity and innovation, which created a magnet to attract more resource, more good people, and more interesting ideas from other regions and countries. This cycle of experimentation and success helps explain the Kemerovo success. Who are the people, and what have been the events they helped catalyze in Kemerovo's ten year journey for innovative health sector reform?

EXHIBIT 3

Many Factors Contribute to Climate and of Crucible Reform:

Interviews with a number of the principal players in the Kemerovo history of innovation (see Attachment 1) suggest that the following factors all contributed in a synergistic way to Kemerovo's current position of leadership in health sector reforms:

* an unusual concentration of intellectual capital due, ironically, to the large concentration of Gulag's in the Kemerovo Region;

* the concentration of rich natural resources for heavy industry (especially mining, steel and chemicals) which attracted economic, political and scientific resources in Kemerovo during the 1940's through the 1960's. During World War II, the relocation of major industries into Kemerovo to escape the threat of German advances in European Russia laid the foundation for much of this industrial growth. (Kemerovo was organized as a formal territory only in 1943);

* a unique team of "systems" were thinkers based at the Kemerovo cybernetics laboratory and pioneered the application of computerized record systems to enhance clinical and administrative decision-making (see the People section that follows);

* an early endorsement to pursue innovation in Kemerovo from the Soviet Ministry of Health, first for health care management information systems, and then for an exploration of mechanisms that would move money differently in the system in order to achieve better system performance (i.e. behavior change of health care physicians and managers);

* an infusion of "seed capital" that helped leverage the attraction of human talent, new computer technologies and a basic infrastructure (clinical, offices, supplies) needed to nurture innovative projects;

* continued governmental endorsement and encouragement (praise, resources and waivers of selected bureaucratic constraints) to explore new strategies; and

* a powerful reinforcement of the value of innovation through an intoxicating appeal to personal pride as Kemerovo initiatives attracted visibility throughout the Former Soviet Union. This visibility has synergistically lead to continuing requests for papers and speeches in and outside Russia; Study tours abroad, access to new literature and visitors to Kemerovo, that in turn added ideas to the crucible for positive change; and various Russian and international grants and contracts to pursue new projects in payment reform and polyclinic restructuring (see Attachments 2 and 3).

These several factors have interacted to stimulate an impressive range of experiences, as well as an important "we can do it" attitude among the key players. Exhibit 3 suggests how the array of factors have catalyzed reforms in Kemerovo. Starting basically from "a blank slate", Kemerovo built an industrial base within the Kuzbass Basin that convinced its people we can overcome most obstacles to pursue progress. This attitude and clustering of people and resources has lead to the chronology of events depicted in Exhibit 4. The remainder of this case study concentrate on the reforms of the late 1980's and 90' that became evident from these events.

New Management Information Systems:

An important building block in Kemerovo health sector reforms was their pioneering work in the development of new information systems for improved clinical and administrative decision-making. In the mid 1970's, physicians involved in psychiatric care at the Kemerovo Cybenetics Laboratory concluded that with better statistical data, patterns of discare and the effectiveness of different treatment interventions could be more accurately defined.

A data base of 200,000 patient records was available for possible automation and computer assisted analysis. The application of systems thinking enables a small group of analysts to design new payment systems for health care providers, and to develop software for patient care processes analyses. Without knowing it, these efforts because the precursor for future studies in the 1990's associated with the development of Medical Economic Standards (MES) and eventually Continuous Quality Improvement activities. Model software for record keeping on polyclinics became available.

The success of these early efforts to apply systems thinking, and to use new computer information technologies in the health sector, attracted positive attention from the Ministry of Health in Moscow. When the USSR Ministry of Health decided it necessary to explore new ways to improve the performance of the Soviet health system, leaders in Moscow were already familiar with the talent pool and experiences of Kemerovo. The 1987 decision to pilot test new methods of management and payment in selected oblasts, caused the senior Deputy Minister of Health, Dr. Sergeiv (the past Chairman of the Kemerovo Health Care Committee) to turn to Kemerovo for assistance. There was an interest to explore "new economic mechanisms" (NEM) and better management.

The Results of New Economic Mechanisms:

As early as 1986, the Kemerovo research group formulated several proposals for health care reform based on promotion of new economic incentives. The reforms aimed to improve quality, accessibility and efficiency of medical care.[3] Up to 1988, the procedure of state budget allocations did not reflect the volume of service delivered; the quality of health care providers was not considered in payments; and the providers were not cost conscious.

As a result of the initial reforms in Kemerovo, the major part of funds were distributed on a weighted capitation basis and then channeled to primary care providers -
EXHIBIT 4.

EXHIBIT 5.

polyclinics. These "Polyclinic Fundholders" paid for each admission of their patients to hospital and for each referral to specialists in other health facilities (Exhibit 5). Patients had the right to choose their polyclinic and general practitioner. Hospitals were reimbursed for each patient on the basis of diagnostic and procedure groupings[4] .

The economic experiment was conducted for 4 years (1988-1991) in the Kemerovo, Samara and St.Petersburg regions and proved to be promising, although at different rates of progress[5] .

A total of about 12 regions (in 73) joined the economic experiment during this time. Other local authorities had not been able to organize themselves adequately to make the changes.

The positive results of the experiment in the Kemerovo region can be summarized as follows[6] :

> Result 1: Health service resources were used more cost effectively. The demand for inpatient care has been appreciably reduced. The number of admissions per 100 citizens fell from 28.7 in 1986 to 26 in 1989. The total number of beds per capita was reported to decline by 10% - for the first time in the post war history of Soviet health care system;
>
> Result 2 - absence of paraclinical examinations deficit;
>
> Result 3 - There was a reduction of waiting list for specialist consultations;
>
> Result 4 - There was a development of day-treatment clinics.
>
> Result 5 - Patients" complaints were reduced by two times, and the population of the region reported higher levels of satisfaction with medical care.

These result were achieved by establishing new, more formal connections between the payment for medical care and an evaluation of its quality. A more careful review of the context and history of these reforms will help understand how lessons from Kemerovo can be of value to other regions.

The current Russian health system in mid-1990s: The Context for Future Kemerovo Reforms:

Russia has had a centrally controlled and tax-financed national health system. All citizens are entitled to "free", i.e. very little formal fee at point of service, but with a large tax burden on the wage base, viewmedical care provided by state-owned medical facilities. The general state budget is the main source of funds for medical care providers, accounting in 1990 for 95% of all medical care financing. The percentage of public spending is decreasing now, but exact figures are still not well understood.

The system is managed by the government through the Ministry of Health and the regional and district health authorities (Health Care Committees). Until recently, it

has been a highly centralized system. The Ministry controlled budget allocations to regions and influenced the decisions of the regional health authorities on all planning and utilization of facilities. Decentralization of financing and management has started and accelerated after the 1991 passage of a law called "on local self-,management". This law states that regions must finance health care from regional and local budgets, and that regional governments should now make decisions on administrative structures and resource utilization. The federal government lost its traditional control over regional health systems. The functions of the Ministry of Health are narrowing to the strategic planning and the formulation of policy goals for the health system, with additional roles in assuring accreditation and licensing of medical personal and facilities shared in an unclear way with oblasts.

Medical facilities are planned using directives or standards, developed by the Federal Government. These prescribe exactly how resources are to be used in the regions and detail the expected bed capacity, personnel (both number and structure), number of visits per physician, and time spent with a patient, among many others. Providers are obliged to follow these directives. While many of these regulations have been relaxed from street rules to "guidelines", most managers still perceive limited flexibility and autonomy in determining resource utilization.

Medical care, including prevention, primary and secondary care is provided through state-owned polyclinics. These clinics serve 30 000 - 70 000 people in a specific geographic area. Each clinic has a district physician and specialists who provide ambulatory care.

The hospital sector is regionalized and divided between general and specialized hospitals. In each region, from the smallest to the largest, the hospitals are: local community hospitals, serving communities with approximately 5000 residents, rural and district hospitals, and central city and regional hospitals. Private hospitals are virtually non-existent. Admissions to hospitals are made by referrals from polyclinics.

Other characteristics of the current system are discussed in recent papers (2,5).

Major problems in the current system

The major problems noted here are those that stimulated the reform experiments in New Economic Mechanisms. The first problem is underfunding of the health care system. Traditionally, the health sector has been financed as the last priority. It was given the residual funds, or whatever was left over after other allocations had been mad. The financial crisis of the system is obvious. Health care expenditures amount to 3% of GNP compared to 6.5-13% in Western countries. There is now a movement to supplement budget allocations with extra-budgetary sources by obliging the production enterprises to share the financial burden through a dedicated tax of 3.6% of the wage base. This social health insurance model is seen as a way to strengthen the financial base of health care. According to the Ministry of Health's rough estimate, health insurance contributions of employers could add 30% to the planned budget allocations.

A second problem is the lack of incentives that could encourage providers" efficiency. Similar to the NHS in the UK and other national health systems, the Russian health system is subject to state control and, until recently, has been deprived of elements of competition. Practically all medical institutions are state-owned and are now directly managed by health authorities. According to the classification proposed by Hurst, this is an integrated rather than contractual model (6).

Free-standing general practitioners do not yet exist in this system except for some pilot projects being supported by USAID. State-owned polyclinics are funded according to 'the capacity of the polyclinic', defined by the potential number of visits and the number of staff. Physicians are paid salaries. Every resident is assigned to a specific local polyclinic. Neither polyclinics nor physicians can compete for patients.

Polyclinics have created a new type of primary care physician who acts as a gatekeeper and refers patient to specialists. Functions similar to those of British GPs are carried out in most Russian polyclinics by at least three physicians - pediatrician, internist and obstetrician. A polyclinic physician usually has neither the skills nor the incentive to provide medical care for all the residents registered with a polyclinic. A typical physician's salary in the 1980s was 10-15% lower than the average wages and salaries in the country and independent of the volume en quality of medical care provided.

Not having economically motivated providers, the health sector has been developing primarily by increasing the number of poorly qualified and low-pad physicians. Their number per capita is twice s large as it is in Western countries. Due to the payment method for hospitals based on bed capacity, increasing the supply of hospital beds has been a priority in hospital sector development. More emphasis has been places on quantitative rather than qualitative goals. There are 13.8 beds per 1000 inhabitants in Russia compared with 9.2 on average for the OECD countries (7).

A third problem with the current system has been the irrational structure of medical care. The lack of incentives and inadequate planning of medical facilities have led to the poor performance of the primary care sector, and a high cost burden from the hospital sector. About 30% of all visits to district physicians are referred to specialists, while in the UK and other countries, this figure is much lower. In the UK it is 8.6% of visits to GP, in the Netherlands 7/9% are referred, in the USA 5.2%, and France only 2.8% are referred to specialists (8).

The rate of hospital admissions as a percentage of the total population in Russia was 22.8 in 1991, while the average rate for the OECD countries was 16.2 (13.8 in the USA, 14.5 in Canada, 15.8 in the UK). It is difficult to make international comparisons of health expenditures because of differences in the definition of hospital and other expenditures. Nonetheless, even a rough estimate made by experts from the World Bank demonstrates a substantially higher budget allocation for hospitals in Russia than in other countries - 69.3% in 1990 against the OECD average 44% for hospitals and 55% for hospitals plus long-term care (8).

The objectives of the regional economic experiments

Objectives

The primary objective of the recent experiments were to improve the structure of medical care with primary care as a priority. Polyclinics, as the major providers of primary care, should increase their contribution to health sector development. The reforms were to make them responsible for the bulk of medical care. Economic incentives are used as a means to encourage polyclinics to better respond to local needs and to increase their productivity.

Another objective has been to weaken the administrative control of health authorities by granting medical care providers new powers in decision-making. Providers are supposed to become economic entities selling their services and having more control over their incomes. This implies a shift from an integrated to a contractual model of relationships with health authorities. By strengthening the primary care sector and granting new economic freedoms to providers, the quantity and quality of medical care is to be increased and made more accessible to the population. More choice for consumers should make providers' behavior more competitive. By making polyclinics fund-holders, the purchasing of medical care will become more pluralistic. Hospitals will be bidding for contracts with polyclinics.

These objectives reflect a fundamental shift in Russian health policy goals, and reflect common themes around the world as societies struggle to adopt principles of "managed competition" After decades of extensive development of a large number of services, now efforts are being made to secure a comprehensive and accessible system of medical care. Intensive development, improving output and quality is the current focus. Economic incentives are seen as a major tool to influence efficiency of service delivery and health outcomes. In broader terms, the new health policy goals are a manifestation of the new responsiveness to the needs of the population. The system is now being designed to be responsive to more sophisticated demands in terms of quality of medical care and consumer choice. Furthermore, the health sector is clamoring for additional resources, and to become the priority of social policy.

Management of medical care

The general idea of the reform is similar to the concept of managed care which was first formulated in the USA using HMOs. Territorial Medical Organizations (TMOs) in the regional experiments of Kemerovo, Samara and St.Petersburg are designed to better manage the processes of medical care, optimizing its structure and enhancing the efficiency of provision. Each TMO has its catchment area with residents assigned to the specific network of medical facilities functioning under its general management. It serves a population of 100 000-150 000 residents. In St.Petersburg, 34 TMOs were set up in 1988, in Kemerovo region there were 56, and in Samara region there were 46. The combinations of medical facilities are different in each TMO.

There are two major types of TMO structures - with and without hospitals. The argument for inclusion of hospitals is the opportunity to influence the structure of health care by directly managing the relationships between polyclinics and hospitals. This model in prevailing in most of the experimenting regions. But in Kemerovo

region most TMOs do not include hospitals to avoid the traditional dominance of hospitals' managers over polyclinics. Hospitals have substantial opportunities to claim a guaranteed budget irrespective of the number of referrals , quantity and quality of inpatient care. Polyclinics in Kemerovo region are free of hospital influence in their decision-making about purchasing inpatient care.

Free- standing ambulance stations are also not included in TMOs. Polyclinics pay for their services from their own budget. The rationale for that is still somewhat debated. Opponents of this scheme make the point that polyclinics cannot control emergency calls because patients may prefer to call the ambulance than to see a doctor in a polyclinic. Advocates of the idea insist that the potential weaknesses of the scheme are offset by the economic incentives to physicians to avoid these calls by paying more attention to patients. Prior to the experiments physicians commonly saw patients at home and recommended that they call an ambulance if they felt worse. Most TMOs include predicted expenditures for ambulance service in the budget of polyclinics as an incentive to use these services only in an emergency.

The major actor in the new model is a polyclinic. The polyclinic actually is the fund-holder, but TMOs play an important role. First, the TMO concentrates capital resources and makes allocations according to population needs, which it can estimate more easily than individual providers. Secondly, small polyclinics cannot bear financial risks. A large structure is needed to manage the risks and ensure financial stability. Thirdly, for technical reasons, polyclinics are not able to make payments to hospitals. To facilitate payments, a centralized system of payments has been established. Some other technical and support functions are also centralized within the TMO.

The powers of medical care providers in operative management have increased substantially. Polyclinics allowed to choose hospitals to which to refer their patients. The rice and quality of inpatient care are the main factors of choice. Cross-boundary purchase and provision are allowed: the local TMO can sell and purchase medical care in other areas. At the same time, providers are obliged to follow the directives imposed by health authorities. These are specified in contracts or provision of medical care. The major limitations for providers concern the range of extent of services provided: the area served: prices of services: medical standards which specify requirements of both the process and outcome of treatment for each diagnosis: the percentage of income which can be spent for payroll and investment: and penalties for inappropriate treatment (when it doesn't comply with medical standards). Beyond this framework polyclinics and hospitals are free to determine their workload and the use of resources. They are not supposed to comply with old norms which specified in detail their use of resources.

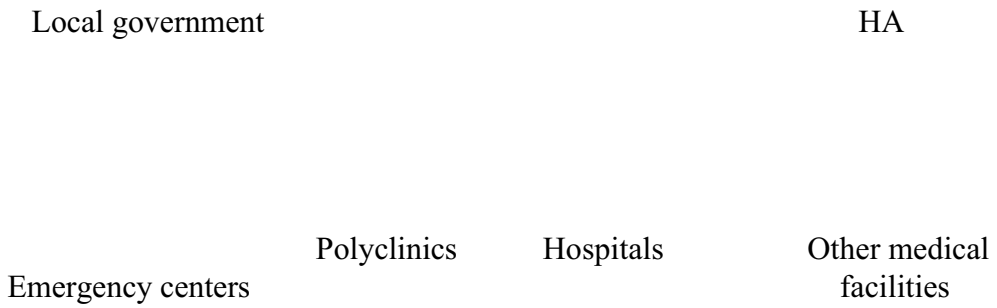
In the course of the experiments, it became clear that polyclinics, as the organizational form of provision, do not ensure the interaction between different primary care providers serving the same area. Internists, pediatricians and obstetricians usually operate in different institutions - adult and children polyclinics, ore women's consultation offices. When operating in the same institution they have no incentives to combine their efforts. This precludes the holistic treatment of patients with an understanding of their family situation and its impact on illnesses.

It also became clear that economic incentives work only when they extend to each member of the staff. So internal economic incentives within polyclinics and hospitals are need in addition to those which operated at facility level. To resolve these issues many TMOs have established 'APT complexes' which are mullet-specialty group practices responsible for primary care. For example, in St.Petersburg the most advanced TMOs have set up autonomous APT complexes which consist of nine physicians (internists, pediatricians, obstetricians) and 10 nurses (10). The autonomous teams have a capped budget which is allocated to their members according to the standard approved by the manager of the polyclinic. Members are collectively responsible for quality of care. A similar team system has been implemented in hospitals. Each department has powers and responsibilities under contract with a manager. Teams delivering paraclinic services are reimbursed by curative department at fixed prices.

Funding of medical care
(see for details in "Risk Adjusted Payments")

Under the new financial scheme, resource allocation in based on a capitated formula. Health or finance authorities make fund allocation to TMOs for payments to polyclinics as fund-holders. The latter pay for referrals of patients for inpatient care, lab tests, consultations and other specialized care in hospitals and other medical facilities. Old and new models of finance are illustrated in Exhibits s.1 and 2.

Two types of changes in the funding scheme have been introduced. Firstly, demand factors are taken into consideration: financing is based not only on the existing network of medical facilities but also on the health needs of the population. For example, in Kemerovo region allocations are made according to the number of registered patients, their age/sex structure, morbidity and mortality rates, and the current network of medical facilities (11). Thus the budget is based on a mixture of supply and demand factors, historical trends and an assessment of the population's needs.



Patients taken by ambulance

Exhibit. 1. Financial flows in the current systems of health care in the Russian Federation

In some districts of St.Petersburg, an attempt has been made to supplement these factors with a deprivation index which takes into account working and living standards of the population served.

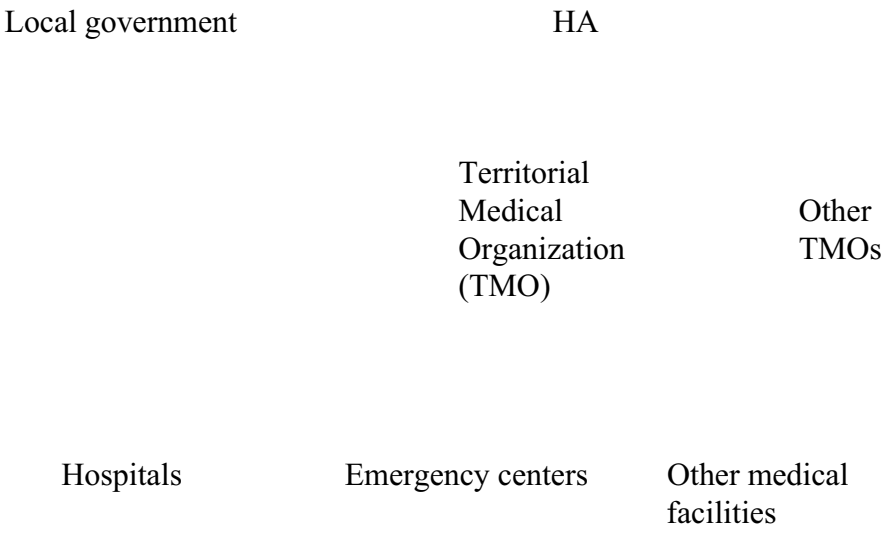


Exhibit. 2. Financial flows under the new economic mechanism in Russian Federation health care.

Three types of standards are set up - satisfactory, unsatisfactory and very unsatisfactory. The capitated payments are adjusted for the level of working and living conditions of the population served (10). These factors are still neglected in most of the regions involved in the experiment and a simpler capitation formula is used.

Secondly, the separate funding of outpatient and inpatient care is replaced by funding of polyclinics as major providers of outpatient care (both primary and secondary) with subsequent reimbursement of inpatient care expenses. As a result incentives for efficiency rise. If polyclinics, or autonomous teams within them, reduce referral rates to hospitals they can keep the fund surplus and divide it between staff bonuses and investment into improvement of facilities. If hospitals provide services at a lower cost than the fixed price, they can also keep the surplus.

THE LAW ON HEALTH INSURANCE:

Further benefits of the reform were still being delivered when, in 1991, the economic system in Russia became unstable and the whole budget mechanism collapsed. Instability and budget deficit have since made it impossible to guarantee reliable account settlement in the health sector.

As an alternative, the idea of transition to a mixed 'health insurance' model suitable for Russia has been elaborated with participation of the same Kemerovo research group.

In 1991 a new "Law on Health Insurance" was adopted by the Russian Parliament, intended to enable the introduction of Social Health Insurance throughout Russian by January 1993.

The law introduces two types of health insurance - social (compulsory) and private (voluntary). Under the social scheme the insurance of unemployed is carried out by local authorities. Health insurance premiums for em-employed are paid by employers.

According to the law people will have rights for: guaranteed volume of medical care; free choice of insurer; free choice of provider of medical care and getting medical care throughout Russia outside the place of residence. An insurer is obliged to register any person irrespective of morbidity risks. Risk selection is prohibited. The basis of the concept is the principle "money follow patients". The freedom of choice creates competition, makes insurers and providers of medical care more responsive to individual needs.

THE KEMEROVO SITUATION IN THE EARLY 1990's

By the end of 1991 however, the situation in the Kuzbass health sector had become very serious. Poor working and living conditions provoked strikes by miners, who won big pay increases. Many other branches of essential industry in the region followed their example. Pricing was freed in Russia and many goods became very expensive.

The medical profession, used to reasonable earnings during the initial economic experiment , now found themselves threatened by poverty and so formed a committee to defend their interests. One of their demands was the introduction of compulsory social health insurance without delay.. This demand was fulfilled in the region from the beginning of 1992. However, even the new Law had internal contradictions. enabling the introduction of compulsory health insurance, but giving no guidance on doing son. To understand these developments, further insight into the history and context of Kemerovo reforms are discussed below.

RISK ADJUSTED PAYMENTS

From the central fund, insurance carries are paid according to weighted capitation standards: these payments the Fund are no longer income-related. The risk-adjusted payments are calculated as estimated costs of medical care of the insured, in order to induce insurers to concentrate more on cost containment insured of indulging in risk selection, i.e. to prevent "the cream chiming".

Risk-adjusted payments is the center of the model of regulated competition, It was shown that simple capitation model cased on age, sex and place of residence does not reflect expected cost accurately. More complicated capitation formulas are more exact, but it is impossible or too expensive to obtain the data for calculating, at least, on the first steps[7] .

Therefore, according to the above - mentioned it was inevitable to use the crude capitation formula. Taking into account that prediction of cost is higher with growth of dimension of population, the two-stage capitation formula was designed, by reference to age, sex and prior costs.

To determine the age-sex coefficient, panel data was analyzed from some 200,000 inpatients, taking into account age, gender, diagnosis, cost and term of treatment. Collecting of statistics started during the economic experiment, when the so-called Accounting and Expertise Center was set up (exhibits. 4-5). The Center was originally a single point of reimbursement for in-patient care on behalf of polyclinics and now some insurance carries contract to use its payment and statistical facilities, and services are extending also to day-care in both hospitals and polyclinics.

The prior costs coefficient is based on analysis of financial reports of municipal and territorial health authorities covering 3 years. To account prior cost coefficients, average costs (current budget) for medical services to residents in medical facilities outside the area, first of all in regional medical institutions.

Although prior cost coefficient reflects a complex,. of some objective factors - an accessibility of care, rates of morbidity, ecological situation, health- consciousness of residents and son on, it also reflects subjective factors. Hence, if analysis has shown that there were unjustified large variations in prior cost coefficients it could make clusters of areas according to the above-mentioned objective factors and determine the average prior cost coefficient for each cluster. The clusters could be made on basis of expert appraisals, at least now.

Undoubtedly, prior cost coefficients can be accounted in each region (by one or other measure) and it should give opportunity to keep appropriate Health Care for residents of each area.

There is a two-stage capitation formula:

1. The fist stage includes the distribution of regional resources among all cities and country districts. This distribution is based on age-sex and prior cost coefficients for all territories. The risk-adjusted premium-replacing payment for each territory is calculated as a product of average capitation standard, numerical strength of population and factor F::

$F = N*(0.2*C_{AS} + 0.8*C_{PC})$,

where C_{PC} - the age-sex coefficient,

C_{PC} - the prior cost coefficient,

0.2 and 0.8 - expert ratios,
N- normalizing ratio

2. On the second stage of the formula only an age-sex coefficient is used for a given risk group. The product of the first part of the formula is multiplied by this coefficient to give the amount of risk-adjusted premium-replacing-payments for any specified group of insured.

This mechanism reflects both risk costs and typical case mix in guaranteed medical care.

The capitation standards are necessarily averages, so the "Kuzbass Sickness Fund" reinsured all health insurance carries and reimburses them 90% of any properly certified excess of cost over capitation.

REIMBURSEMENT OF MEDICAL CARE

Reimbursement is conditional on an insurance carrier fulfilling conditions laid down in an agreement between the "Kuzbass Sickness Fund" and each carrier. So in the interests of provider cost containment, all health insurance carriers must use only rates and methods of medical care reimbursement and quality evaluation established by the regional authorities.

The financing of compulsory health has ceiling derived from legislation and is limited by the territorial amount of insurance premiums. If insurance carriers reimbursed providers case-by-case on an indemnity basis for each episode, medical care costs could increase because medical care providers would have no incentive to control the terms of treatment, the number of procedures and visits. Cost containment is vital given the continued underfunding of health care[8] .

HOSPITAL CARE

In the Kemerovo region, insurance carriers reimburse hospital care using about 1,500 "Clinical Statistical Groups", used a little like DRGs. These 'CSGs reflect not only diagnosis but also care categories, operative procedures, estimated lengths of stay and cost of treatment. CSGs for cases treated are calculated by computer and further differentiated according to the category of hospital (viral, municipal, teaching. etc.)

Hospital reimbursement thus depends not the actual, but on the standard length of stay and cost of treatment. This method encourages hospital cost-efficiency, increasing the numbers of treated cases, and shortening of length of stay.

It is recognized that giving purely economic incentives to providers could damage patients' health. To reduce that risk, we reimburse hospital care by reference both to CSGs and to the so-called 'level of treatment quality'.

These levels are defined by 'Medical-Economic Standards' relating to CSGs. Each Standard sets criteria for clinical outcome and condition of patient after discharge, expressed between 0 and 1. When calculating the amount of reimbursement, insurance carriers multiply the CSG rate by the level of quality (the real formula is more complicated, but is based on the same principle).

Hospital experts themselves evaluate the level of treatment quality of each treated case on discharge. Insurer's experts carry out an audit of 5 per cent of all treated cases and penalties are enforced depending on any divergence of evaluation.

This method has implemented in Kuzbass since 1988 and has given good results: the waiting list for hospital in-patient treatment has been reduced and quality of hospital care has been improved.

PRIMARY CARE

In primary care there are so far very few general practitioners, as training has only recently begun. The main burden of primary care has been carried by polyclinics where physicians work alongside specialists. As the efficiency of care depends on the efficiency of primary care, so it is important also to give primary care providers a tangible interest in the good health of the registered population. Reimbursement on a population per capita basis rewards catchment but practitioner activity.

During the Economic Experiment up to 1991, the major part of funds was distributed on per capita bases and channeled to polyclinics according to numbers registered. Polyclinics were fundholders with standards calculated for all medical care and they paid for their own work, for each admission of their patients to hospital and each visit to a specialist in other facilities. Polyclinics also evaluated the quality of the care and so had an interest in carrying the main burden of medical care themselves, and using the funds more effectively.

Medical-Economic standards of out-patient care were elaborated to define the level of quality of treatment and prevention and to avoid any saving which might harm to patient' health. Earnings of the medical profession depended on the actual results of

their work. Polyclinics evaluated in-patient care rather approximately, because they themselves had no specialists.

All this changed after the transition to compulsory health insurance: insurance carriers now pay for in-patient care according to the rates of CSGs and level of treatment quality. Polyclinics are financed on a per capita basis only out-patient (i.e. physicians organize and pay all out-patient care of their own patient and for emergencies, examinations and consultations). This method encourages 'physicians' own activity and improving qualifications. At the same time, healthier patients allow increases in the number of registrations. All prophylactic services (examinations and vaccinations) are paid by insures carriers, on principle of fee-for-service, to intensify the prevention of diseases.

Again, the method described could encourage in unjustified rise hospital care costs, because hospitals have an interest in increasing the number of treated patients, while physicians might over-refer,. knowing they need no longer themselves finance in-patient care. To avoid this, insurance carriers pay physicians additional money for decreasing costs of hospital care of their patients below the standard calculated from the age-sex coefficient of their patient registrations.

Exhibit. 6 shows that the percentage of acute hospital in-patient treatment was decreased by activity of polyclinics (day-treatment clinics, etc.) for the same age-sex population structure.

The effectiveness of medical care reimbursement is increased by the existence of further internal economic mechanisms in medical institutions which relate earnings with the number of treated patients and level of treatment quality.

Quality assurance as a component of compensation schemes

The major problem is still access: how do we avoid denying patients access to hospitals when inpatient care is appropriate? There is a real danger of a conflict between economic interests of polyclinics and clinical requirements. To counter a temptation of polyclinics to deny referrals and to ensure high quality of services an attempt has been made in some regions to link compensation of staff with quality assurance. The most elaborate compensation scheme is being used in Kemerovo region. Quality assurance in this regions is based on 'medico-economic standards' (MES) which specify the minimum diagnostic and curative procedures and requirements for the outcome of treatment for each diagnosis. The set of procedures is evaluated according to 5-point scale, and the health outcome on the basis of a 4-point scale. Outcome requirements are seen as more important. If they are achieved, the process assessment is not done. If outcome requirements are not met, the procedures done are compared with the set of procedures included in the MES.

In addition, the regional health authority has established a multi-stage evaluation of quality. The first stage is the evaluation made by the head of the hospital department. Then the medical manager of the hospital examines 15% of cases. The third stage is the evaluation done by the hospital commission on quality control. If it reveals an overestimation of quality in a certain percentage of cases in the department, it reduces

the general estimate of the level of quality for all discharges from this department accordingly. There are also external expert commissions at local and regional levels. According to the rules of quality assurance, polyclinics must pay hospitals for neglected illnesses, if it is proven to be their fault. On the other hand polyclinics can charge hospitals for poor quality of inpatient care of their patients. In both cases the revenues of providers are adjusted for penalties. This system of payment extends to autonomous teams within hospitals and polyclinics.

In addition to the MES in Kemerovo region 'models of final results' (MFR) have been elaborated for evaluation of the providers performance in the long term. Indicators have been chosen for each type of provider. Most the these are crude: infant mortality: days of disability: and the morbidity rate. Health authorities create the norms for polyclinics and hospitals and evaluate the deviations from the norms. Each norm has an attached weight in the MFR. Their weighting gives a 'coefficient of getting the planned results' which shows the likelihood of obtaining the desired outcome. This is linked to the income of the provider. At the end of the year, income is adjusted for this coefficient. The pay of the staff is at least partially dependent on performance. More often this reflects the quality of planning (11).

RESULTS

The new system of payments were designed to solve these key problems:

- to avoid the unfounded rise of medical care cost;
- to increase the volume of medical care;
- to improve the quality of medical care;
- to encourage a preventive style of care and gradual transition to the principle
- of 'general practitioners' in primary care;
- to provide low administrative costs of health insurance.

The territorial model of Compulsory Health Insurance was implemented in 1992 with some deviations: while premiums are fully equalized at municipal and area levels only 20% of premiums are available at regional level to equalize the social health insurance differences between different cities and areas of the region. This mechanism reflects local politicians' determination to serve local priorities first.

In 1992, the "Kuzbass Sickness Fund" and its 30 branches covered 80% of population (20% were insured by commercial insurance carriers). Administrative costs of insurers amounted to 3% of premiums only.

The funding of health care has been increased 33% by premiums of enterprises, even though only 40% of forecast insurance premiums can actually be remitted during difficult economic times. Rates of inflation were very high and provoked apparent stepwise increases in health care cost. Nevertheless, real earnings of the medical profession have been raised, and some measures of medical care quality have improved.

In 1993, some amendments to the Law on Health Insurance were adopted by the Russian Parliament. These amendments provided for the establishment of a 'Territorial Fund for Compulsory Health Insurance' very much in the image of the Kuzbass Research Group's own starting model. Now in Kuzbass the Territorial Health Insurance Fund is founded, which doesn't write insurance itself: it only finances 11 health insurance carriers with risk-adjusted premium-replacing payments. On our opinion, this model is the most suitable, because all insurers have the equal conditions. Thus now the Kuzbass Sickness Fund is one of health insurance carriers, which is responsible for comprehensives of compulsory health insurance, without offering voluntary supplements.

This policy compensates, to a certain extent, for a defect in the Law , which otherwise allows the combination of compulsory and voluntary health insurance. Such a combination can erode the right to free medical service.

In Kuzbass, general medical services free at the point of use, in contrast with other regions of Russia and the former USSR where an increasing number of such services are now being charged for.

These are the results of the sociological questioning (by sampling on Many, 1994), according the problems of health care and health insurance[9] .

The researches demonstrated that during the last 3 years the level of satisfaction of population was decreased. But they have even more negative opinion about level of their life. Obviously, it is connected with access to the information about level of living and health care developed countries. Our people can compare now.

The process of botmat: on of public opinion about the Health insurance is not completed yet. Nevertheless, about two thirds of citizen are really judge the chances, which were introduced by health insurance. And this is encouraging news, because our population try to grasp and analyze the results of innovations and share them with us.

First we show the questions and then, distribution of answers:

Possible results	Agree	Not agree	Don't know
1) better qualified medical care	43,6	25,5	21,0
2) more attentive personnel	41,6	30,2	19,2
3) decrease of queers, watings	43,6	28,4	19,0
4) freedom to choose doctor, medical facility	50,1	21,1	19,7
5) improved access to deficit drugs, medicines	34,0	30,8	26,0

6) possibility to apply to insurance company for the consultation about their rights, controversial questions, control of treatment and etc.;	49,5	10,9	30,4
7) increase of variety of medical services;	45,0	19,6	26,3
8) possibility to have monetary compensation in case of complain;	35,9	23,6	31,3
9) increase of possibility to use unique, high-quality medical equipment;	39,2	22,6	29,1
10) preservation of free medical care within the frame-work of quarantined benefits package;	58,4	10,1	22,5
11) other (which?) 0,5			
12) no results 13,3			
didn't answer 9,1			

Most of people recognize the results, but correlation of positive and negative appraisal is different. It can be concluded that the preservation of free medical care within the framework of quaranteed benefits package has favorable appraisals, which are 5.8 times then unfavorable, and the possibility to apply to the insurance company for the consultation - 4,5 times. The free choice of doctor and medical facilities yields beneficial (2/4 times) and "the increase of variety of medical services (2.3 times). But number of people, which have agreed with the opinion that we have "improved access to deficit drugs" is only 1/1 times more, than number of the opposite opinions. For the other affirmations, correlation of favorable to unfavorable ones is 1.4-1.7 times.

Comparative analysis of all the answers depending on social demographical characteristics of participants has showed that all the results were recognized by the well-to-do people. But sex and age have practically no influence on the correlation of answers. It has been noticed, that inhabitants of small and middle size cities of Kuzbass recognize more high qualified medical care. The same people and high educated citizens and those who has problems with health notify such factors as "more attention from the side of personnel" and "decrease of queue". "Possibility of free choice of doctors and medical facilities" and "improved access to deficit drugs" more often are recognized by the people with weak health and high education. And the last re result is mentioned by people from rural settlements. "The possibility to apply with problems to insurance company" was proved by healthy people and inhabitants of largest cities. "Increase of variety of medical services" and "possibility to use unique equipment" more often is recognized by high educated people, which have any problems with health, and inhabitants of small cities and settlements. "The possibility to receive monetary compensation was mentioned by towns people first of all.

13% of Kuzbass people didn't notice any changes, which were introduced by health insurance. Among them, there are people with weak health, citizens older than 35, not very prosperous, and country-side people.

Up to the current moment, only some people from Kuzbass applied for help to insurance company. According to results of questioning only about 3% (41 people, who participated it)/ 10 of them are satisfied by their assistance, 26 were satisfied partially and 18-not-satisfied.

Of course, general conclusions from such a small number of participants is dangerous; but this data does suggest early satisfaction of population with these changes.

Citizens of the region recognize that health insurance is introducing useful innovations. Most of people, which have given specific answers about the results, have recognized the following points are important for the future:

- preservation of free medical care within the framework of quarantined benefits package;
- possibility to secure from insurance company assistance about patient rights and defense;
- free choice of doctors and health facilities; and
- increase of the variety (range) of medical services provided.

These experience have led to further innovative projects in 1995-1996 supported by the USAID ZdravReform Program (see Attachments 2 and 3)

Current Reform Innovations:

Kemerovo leaders, supported by grants and technical assistance from the ZdravReform program, are now exploring new ways to move beyond "traditional health insurance" to establish health insurance payments within modern contracting methods adapted from the US and UK experiences. These new contracting methods encourage creative payment incentives not only with hospitals and polyclinics, but now with new "integrated health systems" that marry features of modern managed care service delivery with new capitated and global budget incentive payment systems that borrow ideas from the US Health Maintenance Organization (HMO) model. There are three working groups focused on the following priority areas of innovation:

Work Group 1: Management and Organization

This group has defined the concept of a "Medical Insurance Association" which function like a coordinating committee situated between local insurance companies and providers of care. This group of approximately seven people request the interests of payers, providers and citizens. They seek to define practical new ways for:

* methods and levels of payment to hospitals and polyclinics;
* new methods of "Utilization Management",
* cost management strategies within providers;

* planning referral flows and care patterns; and
* new procedures to gather and analyze data to monitor quality and costs of care.

Work Group 2: New Payment Methods:

Instead of contracting with each hospital and polyclinic, the insurance company contracts with and organized network which then contracts among all of the providers. Each provider negotiates their share of a capitated pool of funds. Such payments encourage a shift in the principle of "regulated rates" to a principle of a "negotiated rates". GP Fund Holding schemes are being employed to that GPs have greater influence over specialist referrals and the quality and cost effectiveness of primary care. Polyclinics are at risk for 20% of hospital care so they have an incentive to avoid unnecessary referrals and admissions. Hospitals must live within new global budgets so they encourage reduced lengths of stay in hospital.

Work Group 3: Utilization Management

This group has defined three new approaches to enhance quality and improve the cost effectiveness of care:

1. Planning pre-admission referrals and arranging for discharge planning at the first day of admission. Protocols for surgeries to occur earlier in the stay help reduce unneeded lengths of stay;

2. Administrative controls that require pre-authorization for admission to hospital and for selected surgical procedures, as well as "concurrent review" to avoid inappropriate care; and

Attachment 1

Persons Interviewed to
Develop Kemerovo Care Study

Attachment 2

Kemerovo Projects Supported by
USAID Zdrav*Reform* Program
1995-1996

Information Sysetm for Territorial Funds of Mandatory Health Insurance
Information Support for Polyclinic Restructuring
Team leader - Roman M. Zelkovitch
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43 Volgogradskaya St.,
650036 Kemerovo
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3842 31 41 83 h
Fax: 3842 55 06 10

Testing New Methods of Payment in Polyclinics
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Polyclinic Restructuring
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Health Maintenance Organizations
Team leader - Natalya V. Nelepina
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Training Program for Managers in Health Care and Territorial Funds

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Development and Testing of MES for Outpatient Care

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Attachment 3

Narrative Review of Kemerovo Experiencies
for Testing New Polyclinic Payment Methods

Activity 3

Phases 2 & 3

Workplan and Schedule

The mentioned phases will be implemented from November 1,1995 to June 30,1996: implementation and results' evaluation.

Implementation Phase
Phase A
November 1,1995 - January 30,1996

1. Development of manual on new polyclinic payment methods' implementation.

Personnel	Number of Days
1. A.I.Zakirov	3
2. V.G.Leontieva	3
3. L.A.Sedacheva	3
4. G.N.Tsarik	3
5. T.G.Uryeva	8
6. N.I.Khodakova	3
7. L.E.Isakova	3
8. R.M.Zelkovitch	3
9. N.A.Urneva	7

Total Labor Effort: 36 days
Total Phase Cost: $1990

Phase B
(November 1,1995 - December 30,1996)

1. Development of new management technologies for polyclinic.

Personnel	Number of Days
1. A.I.Zakirov	3
2. V.G.Leontieva	3
3. L.A.Sedacheva	3
4. T.G.Uryeva	10
5. N.I.Khodakova	3
6. L.E.Isakova	3

7. R.M.Zelkovitch	3
8. N.A.Urneva	9

Total Labor Effort: 37 days
Total Phase Cost: $2025

Phase C
(December 1,1995 - January 15,1996)

1. Development monitoring mechanism

Personnel	Number of Days
1. A.I.Zakirov	3
2. V.G.Leontieva	10
3. T.G.Urneva	8
4. N.I.Khodakova	3
5. L.E.Isakova	3
6. R.M.Zelkovitch	3
7. N.A.Urneva	8
8. G.N.Tsarik	3

Total Labor Effort: 34 days
Total Phase Cost: $1875

Phase D
(January 30 - June 1,1996)

1. Monitoring of contractual duties' fulfillment. Analyses of new payment methods' results.

Personnel	Number of Days
1. A.I.Zakirov	6
2. V.G.Leontieva	6
3. T.G.Uryeva	18
4. N.I.Khodakova	6
5. L.E.Isakova	3
6. R.M.Zelkovitch	3
7. N.A.Urneva	15

Total Labor Effort: 57 days
Total Phase Cost: $3120

Phase E

(March 1 - June 30,1996)

1. Evaluation of payment methods' influence on treatment efficiency and quality.
2. Preparation of final report.

Personnel	Number of Days
1. A.I.Zakirov	5
2. V.G.Leontieva	6
3. T.G.Uryeva	11
4. N.I.Khodakova	6
5. L.E.Isakova	3
6. R.M.Zelkovitch	3
7. N.A.Urneva	15
8. L.A.Sedacheva	3
9. G.N.Tsarik	3

Total Labor Effort: 55 days
Total Phase Cost: $3005

ACTIVITY 3

TESTING NEW POLYCLINIC PAYMENT METHODS

1.	Anvar Iskhokovitch Zakirov Project Manager	20 days
	CONSULTANTS	
2.	Ludmila Afanasievna Sedacheva	9
3.	Veronica Gavrilovna Leontieva	21
4.	Roman Moiseevich Zelkovitch	15
5.	Ludmila Evgenievna Isakova	15
6.	Galina Nikolaevna Tsarik	9
7.	Natalia Nikolaevna Khodakova	21
8.	Tatiana Georgievna Urneva	55
9.	Natalia Aleksandrovna Urneva	54

PROJECT MANAGER

_____
A.I.Zakirov

RESTRUCTURING POLYCLINICS INTO FREESTANDING GENERAL PRACTICES (FGP)

Project Manager L.A.Sedacheva

Project Goal: Introduction of cost-efficient health care technologies;
- improvement of primary health care

In the course of implementation of Phase II of the activity, it is planned to start operating Group Gps beginning on January 1st 1996 using the Polyclinic No 5 of Kemerovo, Mezhdurechensk polyclinic, Krasninsk regional hospital, Kemerovo GP as a free standing entity, GP at the polyclinic of Poperechnoe, Jurgin region. Other Gps are being equipped with software, hardware, medical equipment. Personnel is being trained.

1. Establishing of a free-Standing Group GP at a Multi-Specialty Polyclinic (Kemerovo polyclinic No 5)

Group GP is being organized at one therapy ward (6 therapy units).
Financing principle - partial fundholding. Part of capitation rate providing for complex outpatient treatment will be allocated to the group GP.
During the transmition period the status of the practice will be that of a polyclinic unit with uts own sub-account. The relationship between the GP and the polyclinic management, physicians, hospitals, diagnostics units and financing bodies will be determined by contracts. The return of funds to the Group GP in case the hospital admission rate of enrolled population reduces will be determined by the contracts with funding parties. Funds saved on the use of emergency care facilities, services of physicians, consultants, diagnostics units will remain at the Group GP disposal. Part of the funds will be used for employees' bonuses, as well as the part of funds saved on the reduction of hospital admission rate.

When determining the capitation rate sex, age of the enrolled population will be taken into consideration. During the transition period health care will be provided to adults only. The GP includes a gynecologist. In the future the GP will get the status of a legal entity with its own bank account. The allocated premises will be used on the basis of operative management or joint business management.

To implement the program the following activities ant execution dates are planned:
Responsible - Polyclinic Head Physician.

1. Post-graduate training physicians of the following professions: *neurologist, otolaryngologist, ophtalmologist* at the main health facilities - first quarter of 1995.
   Person responsible - Departament of Population Health Protection.
2. Provide - the Group GP with necessary medical equipment first quarter of 1995.
   Person responsible - Polyclinic Head Physician, Kemerovo Administration Health Care Department.
3. Installation of computer network - fourth quarter of 1996.
   Person responsible - Kemerovo Regional Informatics Center.
4. Making a contract between the Group GP and ppolyclinic administration.
   Implementation period: December 1995 - January 1996.
   Person responsible - GP Manager.
5. Enrollment: December 1995 - January 1996.

2. Establishing of a Free-Standing Group GP at Branch Polyclinic of Mezhdurechensk

The Practice includes 4 general practitioners and provides primary health care for 10,000 people.

Financing principle - partial fundholding. Capitation rate is assigned to the GP to provide outpatient health care services (except *stomatologic*). During the transition period the status of the GP will be that of a polyclinic unit with its own sub-account. The relationship between the GP and the polyclinic management, physicians, hospital, diagnostics units and financing bodies will be determined by contracts. The return of funds to the Group GP in case the hospital admission rate of enrolled population reduces will be determined by the contracts with funding parties. Funds saved on the use of emergency care facilities, services of physicians, consultants, diagnostics units will remain at the Group GP disposal. Part of the funds will be used for employees' bonuses, as well as the part of funds saved on the reduction of admission rate and the number of cases of emergency care.

When determining the capitation rate sex, age of the enrolled population will be taken into consideration. During the transition period health care will be provided to adults only. The GP includes a gynecologist. In the future the GP will get the status of a legal entity with its own bank account. The allocated premises will be used on the basis of operative management or joint business management.

To implement the program the following activities and execution dates are planned:

2.1 Current renovation of the polyclinic - III and IV Quarter of 1995.
Person responsible: Head Physician of the city Hospital No 1.

2.2 Post-graduate training of physicians (4 persons) under the general Practitioner Program at Kemerovo Health Care Academy and health care facilities - IV Quarter of 1995 - I Quarter of 1996.
Person responsible - Kemerovo Regional Health Protection Department, City Hospital No 1 Head Physician.

2.3 Provide - the Group GP with necessary medical equipment IV Quarter of 1995 - I Quarter of 1996.
Person responsible - Mezhdurechensk City Hospital No 1 Head Physician.

2.4 Making GP contracts:
- with the hospital-polyclinic association Head Physician.

2.5 Enrollment: January 1996.

3. Establishing a Family Practice at Belov Polyclinic Association Branch 1

Serviced population - adults and children 3-15 years old.
During the transition period the status of the GP will be that of polyclinic unit with its own sub-account. In the future the GP will get the status of a legal entity with its own bank account. The allocated premises will be used on the basis of operative management or full business management. Financing principle - partial fundholding. Capitation rate is assigned to the Family Practice to provide outpatient health care services (except *stomatologic emergency care*).

The relationship between the GP and the polyclinic management, physicians, hospitals, diagnostics units and financing bodies will be determined by contracts. The return of funds in case the hospital admission rate and number of cases of emergency care station reduces will be determined by the contracts with funding parties. Funds saved on the services of physicians and diagnostics units will remain at the Family Practice disposal. Part of the funds will be used for employee's bonuses.

To implement the program the following activities and execution dates are planned:

3.1 . Renovation and reconstruction of GP office premises - IV quarter of 1995.
Person responsible - Polyclinic Association Head Physician.

3.2. Equip the GP with software and hardware - IV quarter of 1996.
Person responsible - Polyclinic Association Head Physician.

3.3. Provide - the Group GP with necessary medical equipment IV quarter of 1995 - I quarter of 1996.
Person responsible - Kemerovo Regional Health Protection Department, Polyclinic Association Head Physician.

3.4. Post-graduate training of physicians under the General Practitioner Program at Kemerovo Health Care Academy and health care facilities - IV quarter of 1995 - I quarter of 1996.
Person responsible: Kemerovo Regional Health Protection Department, Polyclinic Association Head Physician.
3.5 Making GP contracts:
- with the Polyclinic Association administration.
3.6 Enrollment: December 1995 - January 1996.

4. Establishing a Family Practice at Berezovskii Polyclinic Branch 1

Serviced population - adults and children.
During the transition period the status of the GP will be that of a polyclinic unit with its own sub-account. In the future the GP will get the status of a legal entity. The allocated premises will be used on the basis of operative management or full business management. Financing principle - "mixed" fundholding. A part of capitation rate is assigned to the Family Practice to provide outpatient health services in cases of acute chronic cases. Certain health services, mostly prevention, will be paid for on the fee-

for-service basis. The relationship between the Family Practice and the City Health Care Association, polyclinic management, hospitals, diagnostics units and financing bodies will be determined by contracts. The return of funds in case the hospital admission rate and number of cases of emergency care station reduces will be determined by the contracts with funding parties. Funds saved on the services of physicians and diagnostics units will remain at the Family Practice disposal. Part of the funds will be used for employees' bonuses.

To implement the program the following activities and execution dates are planned:

4.1 . Renovation and reconstruction of GP office premises - IV quarter of 1995 - I quarter of 1996.
Person responsible - State Territorial Health Care Association Head Physician.

4.2. Post-graduate taining of physicians under the General Practitioner Program at Kemerovo Health Care Academy and health care facilities - IV quarter of 1996 I quarter of 1996.
Person responsible - Kemerovo Regional Administration Health Protection Department, State Territorial Health Care Association Head Physician.

4.3. Equip the GP woth software and hardware - IV quarter of 1995.
Person responsible - State Territorial Health Care Association Head Physician.

4.4. Provide - the GP office with necessary medical equipment IV quarter of 1995 - I quarter of 1996.
Person responsible - Kemerovo Regional Health Protection Department, State Territorial Health Care Association Head Physician.

4.5. Making GP contracts:
- with the State Territorial Health Care Association Head Physician.

4.6 Enrollment: December 1995 - January 1996.

5. Establishing a Free-Standing Group General Practice in Kemerovo with the Status of Legal Entity

Serviced population - adults and children.
Financing principle - "mixed" fundholding. Capitation rate and fees for certain health services, mostly preventive.
The relationship between the Group GP and the City Administration, insurers, hospitals and diagnostics units will be determined ny contratcs. Funds saved on the reduction of hospital admission rate and number of cases of emergency health care station will remain at the Group GP disposal. Part of the funds will be used for employees' bonuses.

To implement the program the following activities and execution dates are planned:

5.1 . Renovation and reconstruction of GP office premises - IV quarter of 1995 - I quarter of 1996.

Person responsible - State Territorial Health Care Association Head Physician.

4.2. Post-graduate taining of physicians under the General Practitioner Program at Kemerovo Health Care Academy and health care facilities - IV quarter of 1996 I quarter of 1996.
Person responsible - Kemerovo Regional Administration Health Protection Department, State Territorial Health Care Association Head Physician.

4.3. Equip the GP woth software and hardware - IV quarter of 1995.
Person responsible - State Territorial Health Care Association Head Physician.

4.4. Provide - the GP office with necessary medical equipment IV quarter of 1995 - I quarter of 1996.
Person responsible - Kemerovo Regional Health Protection Department, State Territorial Health Care Association Head Physician.

4.5. Making GP contracts:
- with the State Territorial Health Care Association Head Physician.

4.6 Enrollment: December 1995 - January 1996.

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